What is claimed is:

1.   A computer-readable storage medium on which is recorded a program for causing a computer, which obtains resistance of a conductor in consideration of a skin effect according to a frequency of a given signal, to execute a process, the process comprising:

generating a model where a conductor is divided by a plurality of faces parallel to a surface of the conductor, which are set so that intervals of the faces are smaller as the faces are nearer to the surface, and larger as the faces are farther from the surface;

calculating resistance of the conductor, which corresponds to the frequency, by using a generated model; and

outputting a calculation result.

2.   The computer-readable storage medium according to claim 1, wherein

the computer generates a model where the intervals of the plurality of faces vary according to a depth of a skin.

3.   The computer-readable storage medium according to claim 1, the process further comprising

calculating a skin resistance coefficient of the conductor by using the generated model, and outputting an obtained skin resistance coefficient.

5   4.   A computer-readable storage medium on which is recorded a program for causing a computer, which obtains resistance of a conductor in consideration of a skin effect according to a frequency of a given signal, to execute a process, the process comprising:

10   calculating a depth of a skin by using the frequency;

generating a model where a depth from a surface of a conductor is represented by a product of the depth of the skin and a division rate, a signal conductor is
15 vertically and horizontally divided by a plurality of faces parallel to a surface of the signal conductor, which are set with a plurality of division rates so that intervals of the faces are smaller as the faces are nearer to the surface of the conductor and larger as
20 the faces are farther from the surface, a ground conductor is vertically divided by a plurality of faces parallel to a surface of the ground conductor, which are set by using the plurality of division rates, and the ground conductor is horizontally divided by a
25 plurality of faces which are set based on a distance

between the signal conductor and the ground conductor;

calculating resistance of the signal conductor, which corresponds to the frequency, by using a generated model; and

5   outputting a calculation result.

5.   A propagation signal propagating a program to a computer which obtains resistance of a conductor in consideration of a skin effect according to a

10   frequency of a given signal, the program causing the computer to perform:

generating a model where a conductor is divided by a plurality of faces parallel to a surface of the conductor, which are set so that intervals of the faces

15   are smaller as the faces are nearer to the surface, and larger as the faces are farther from the surface;

calculating resistance of the conductor, which corresponds to the frequency, by using a generated model; and

20   outputting a calculation result.

6.   A propagation signal propagating a program to a computer which obtains resistance of a conductor in consideration of a skin effect according to a

25   frequency of a given signal, the program causing the

computer to perform:

calculating a depth of a skin by using the frequency;

generating a model where a depth from a surface of a conductor is represented by a product of the depth of the skin and a division rate, a signal conductor is vertically and horizontally divided by a plurality of faces parallel to a surface of the signal conductor, which are set with a plurality of division rates so that intervals of the faces are smaller as the faces are nearer to the surface of the conductor and larger as the faces are farther from the surface, a ground conductor is vertically divided by a plurality of faces parallel to a surface of the ground conductor, which are set by using the plurality of division rates, and the ground conductor is horizontally divided by a plurality of faces which are set based on a distance between the signal conductor and the ground conductor;

calculating resistance of the signal conductor, which corresponds to the frequency, by using a generated model; and

outputting a calculation result.

7.   A calculation method obtaining resistance of a conductor in consideration of a skin effect

according to a frequency of a given signal, comprising:

setting a plurality of faces parallel to a surface of a conductor so that intervals of the faces are smaller as the faces are nearer to the surface, and larger as

5   the faces are farther from the surface;

generating a model where the conductor is divided by the plurality of faces; and

calculating resistance of the conductor, which corresponds to the frequency, by using a generated

10   model.

8.   A processing device obtaining resistance of a conductor in consideration of a skin effect according to a frequency of a given signal, comprising:

15   a generating device generating a model where a conductor is divided by a plurality of faces parallel to a surface of a conductor, which are set so that intervals of the faces are smaller as the faces are nearer to the surface, and larger as the faces are

20   farther from the surface;

a calculating device calculating resistance of the conductor, which corresponds to the frequency, by using a generated model; and

an outputting device outputting a calculation

25   result.